BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application No. 99-1:

SUMAS ENERGY 2 GENERATION FACILITY

EXHIBIT ___ (FB-RT)

APPLICANT'S PRE-FILED REBUTTAL TESTIMONY

WITNESS: FRANK BRITTAIN, Ph.D.

Q. Would you please reintroduce yourself to the Council?

A. My name is Frank Brittain. I am a Principal Noise Control Engineer and have been designing industrial facilities to address noise concerns, with a focus on power plants, for nearly 30 years.

Q. What subjects do you intend to address in your testimony?

A. I will be responding to the written testimony of Jerry Lilly filed on behalf of the Province of British Columbia on October 1, 2001 ("Lilly PFT").

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Q. Towards the end of his testimony, Mr. Lilly states "the best time to address noise problems is during the design and permitting phase." Do you agree with this statement?

A. In part yes, but in part no. As I mentioned several times in my earlier testimony (Applicant's Prefiled Testimony: Frank Brittain, Ph.D. ("Brittain PFT")), to ensure that noise requirements will be met once a plant goes into operation, it is critical that proper attention be paid to noise control during the detailed design phase. Because of the importance of this issue, I made a special point while formulating my opinion, as is my practice, to assess whether SE2 is committed to giving noise control such attention during the detailed design phase.

I disagree with Mr. Lilly's statement to the extent that in his reference to "*the* design and permitting phase" he is suggesting that these two distinct stages should be treated as one for the purposes of evaluating a proposal such as SE2's. Lilly PFT, p. 5:14. As I explained in my earlier testimony, during the *design* phase, specific solutions for noise control are finalized through an iterative process of developing and updating the noise prediction model as more detailed data are obtained from equipment suppliers; preparing noise specifications for equipment procurement, including limits and other requirements; soliciting and reviewing supplier bids; further updating of the noise prediction model based on supplier bids; and so forth. *See* Brittain PFT, pp. 5:29-7:23.

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During the *permitting* phase it is neither possible nor appropriate to identify such specific design solutions. Until it is known whether a permit will be issued, it is both economically and technically impractical to begin detailed design, which is time consuming and expensive. As a result, the focus during the permitting phase should be on determining whether it will be feasible to meet regulatory requirements and address noise concerns based on the general parameters of the project and the mostly generic and conservative data provided by equipment suppliers. *Id*., p. 5:33. Permitting and design are two entirely different and separate phases.

The data, modeling and general plant design information that I have reviewed all indicate that it will be feasible to address noise concerns, including concerns about low frequencies and tones. Moreover, SE2 has indicated its commitment to giving proper attention to noise issues during the detailed design phase by putting itself and its suppliers on the line financially if noise limits are not met.[1] As I testified earlier, based on the above considerations and my experience with noise control on over 100 power plants, I am confident that the current SE2 proposal is adequate to result in compliance with City and County noise regulations and to prevent reasonably objectionable noise to the facility's neighboring community.

[1] *See, e.g.*, Second Revised Application p. 4.1-15 (agreeing to: (1) "include noise performance specifications in purchase agreements" and to make "final payment to equipment suppliers" contingent on their meeting these specifications; (2) conduct extensive post-operation noise monitoring; and (3) mitigate any noise that does not comply with regulations or, with respect to low frequencies and tones, is reasonably objectionable).

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Q. Mr. Lilly suggests that further studies of low frequency noise and tones must be conducted before SE2's proposal can be evaluated. Do you agree?

A. No. I agree that much more detailed evaluation will be needed during the final design stage. To the extent that he is suggesting such evaluations be conducted before a permit is issued, I disagree. For all of the reasons discussed above, it is my view that the proper approach is the one generally outlined by Jones & Stokes in the Draft Supplemental Environmental Impact Statement ("D-SEIS"), namely, that further modeling, evaluation, and design specifications should be performed prior to construction, *i.e.*, during the detailed design phase. D-SEIS, pp. 3.4-7 to 3.4-8.

Q. What is your opinion regarding Mr. Lilly's suggestion that portions of British Columbia within 3.5 miles of the facility be included in the monitoring program?

A. I agree that there should be monitoring locations within British Columbia, and it is my understanding that SE2 concurs. It should be noted, that by meeting noise requirements and acceptable levels of low-frequency and tonal noise at the nearest residences, noise in British Columbia will be lower due to increased distances. In any case, a monitoring radius of 3.5 miles is considerably further than normal practice.

Q. Mr. Lilly proposes that the monitoring program should include measurement of the background noise spectrum in 1/3-octave bands from 20 Hz to 10,000 Hz. What do you think of this proposal?

A. Such data exceeds normal practice for monitoring, but I have been informed that SE2 will be collecting 1/3 octave band data for this frequency range. Thus, I do not believe this is an issue with regard to SE2's proposal.

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Q. He also suggests that the background noise measurements should be taken for a minimum of 60 seconds, preferably between the hours of 12:00 a.m. and 5:00 a.m. Do you agree?

A. Measuring for 60 seconds is reasonable as a minimum. However, it will depend on the conditions in the field when the measurements are taken. As to doing the measurements between 12:00 a.m. and 5:00 a.m., this is standard practice. Once again, it depends on the actual conditions in the field which must be determined by the noise specialist who is taking the measurements.

Q. Mr. Lilly also proposes that an initial monitoring report be submitted to the Council 60 days after the commencement of operations and that any required mitigation measures be accomplished within 90 days of submission of the report. Does this proposal seem practicable to you?

A. An initial monitoring report could be issued within 60 days of commercial operation. However, it would often be premature to include a mitigation plan at this point. I suggest the report include a status report of developing any retrofit noise controls needed, and a date for delivery of the mitigation plan and a schedule for its implementation. As Mr. Lilly indicated, 90 days thereafter may not be sufficient. I presume the Council could make a determination if the plan or schedule were to be inadequate.

END OF TESTIMONY

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